

No. 740,968.

PATENTED OCT. 6, 1903.

W. A. WYLIE.
RECLINING CHAIR.
APPLICATION FILED DEC. 1, 1902.

NO MODEL.

Fig. 1.

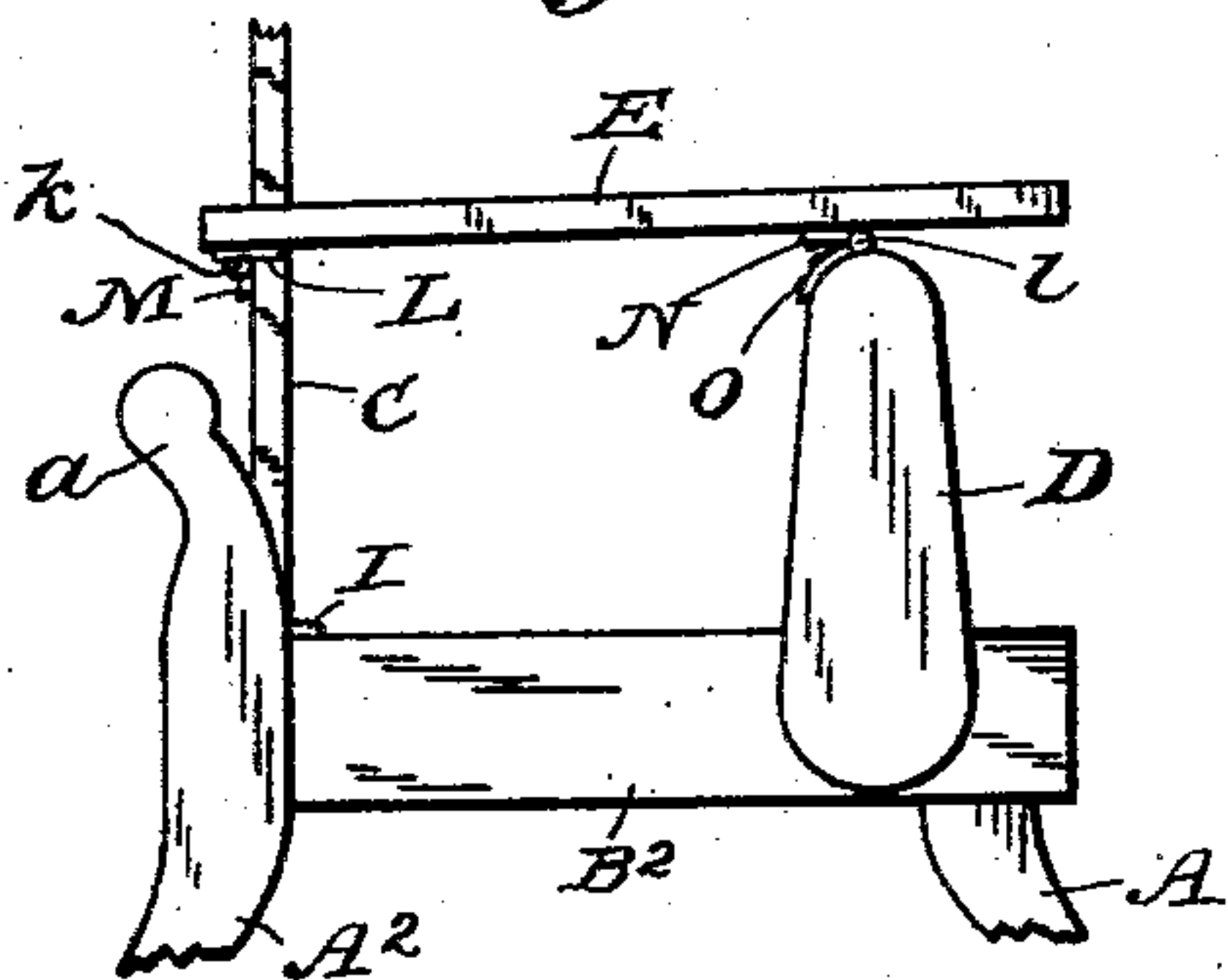


Fig. 2.

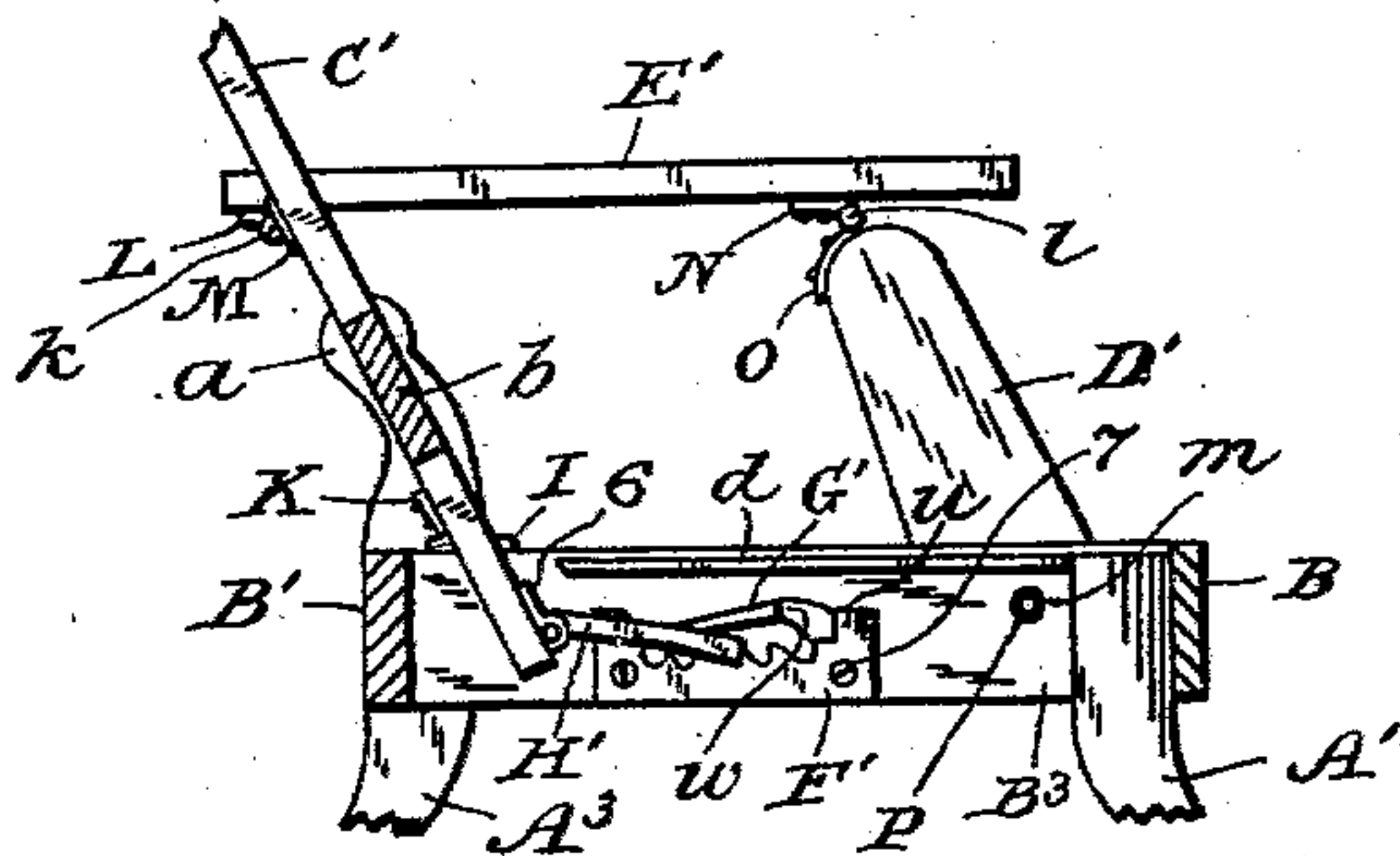


Fig. 3.

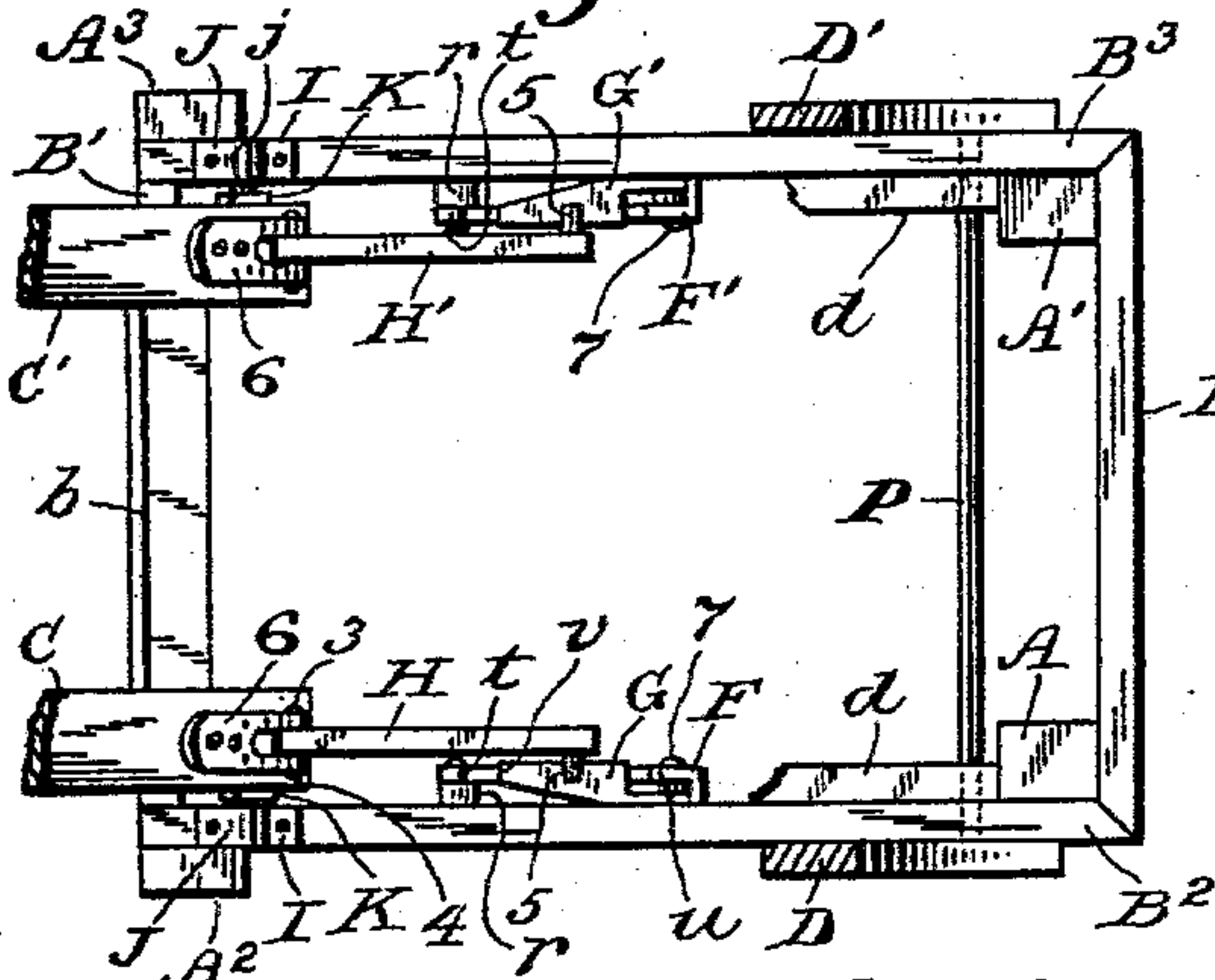


Fig. 4.

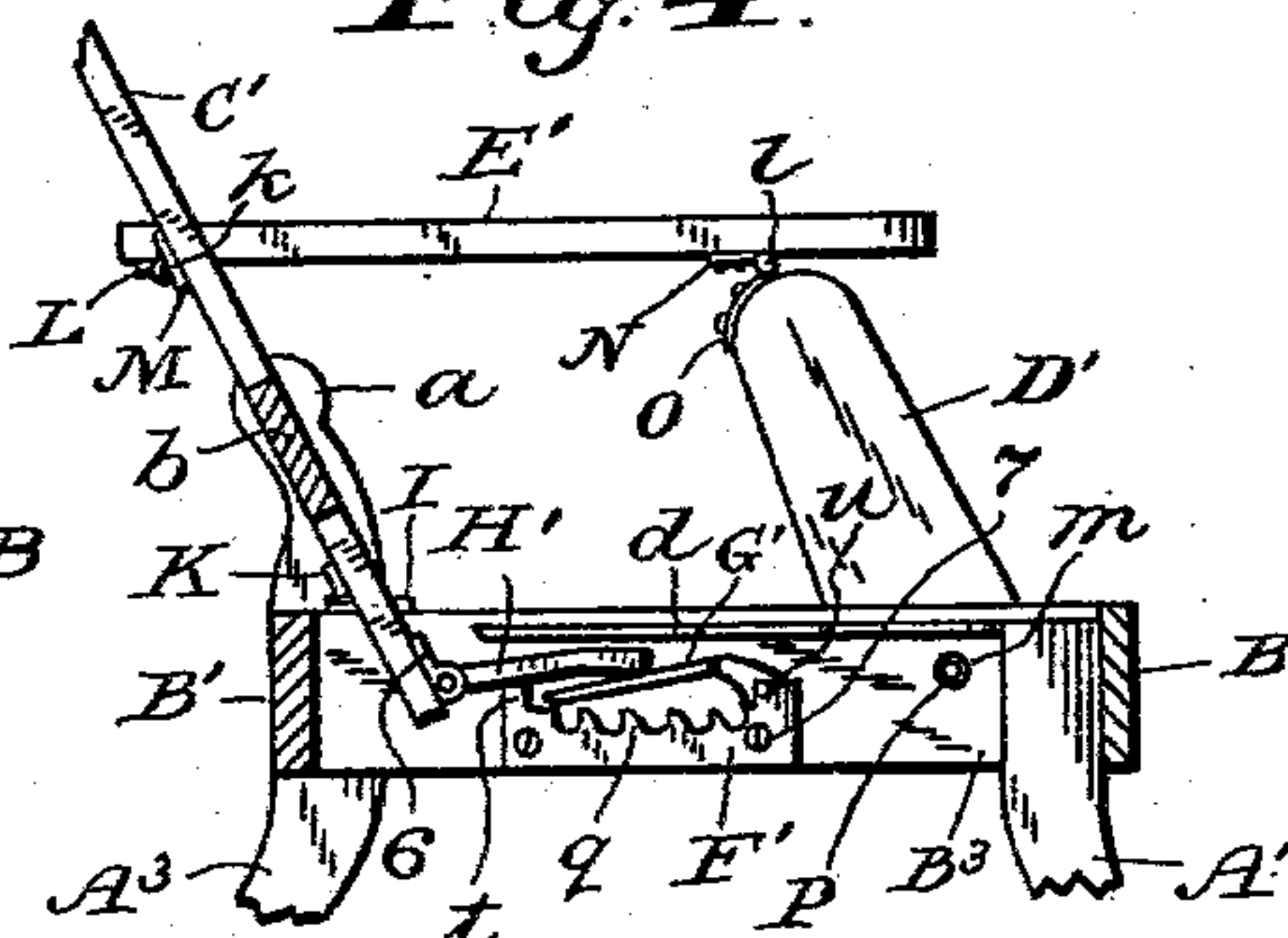


Fig. 5.

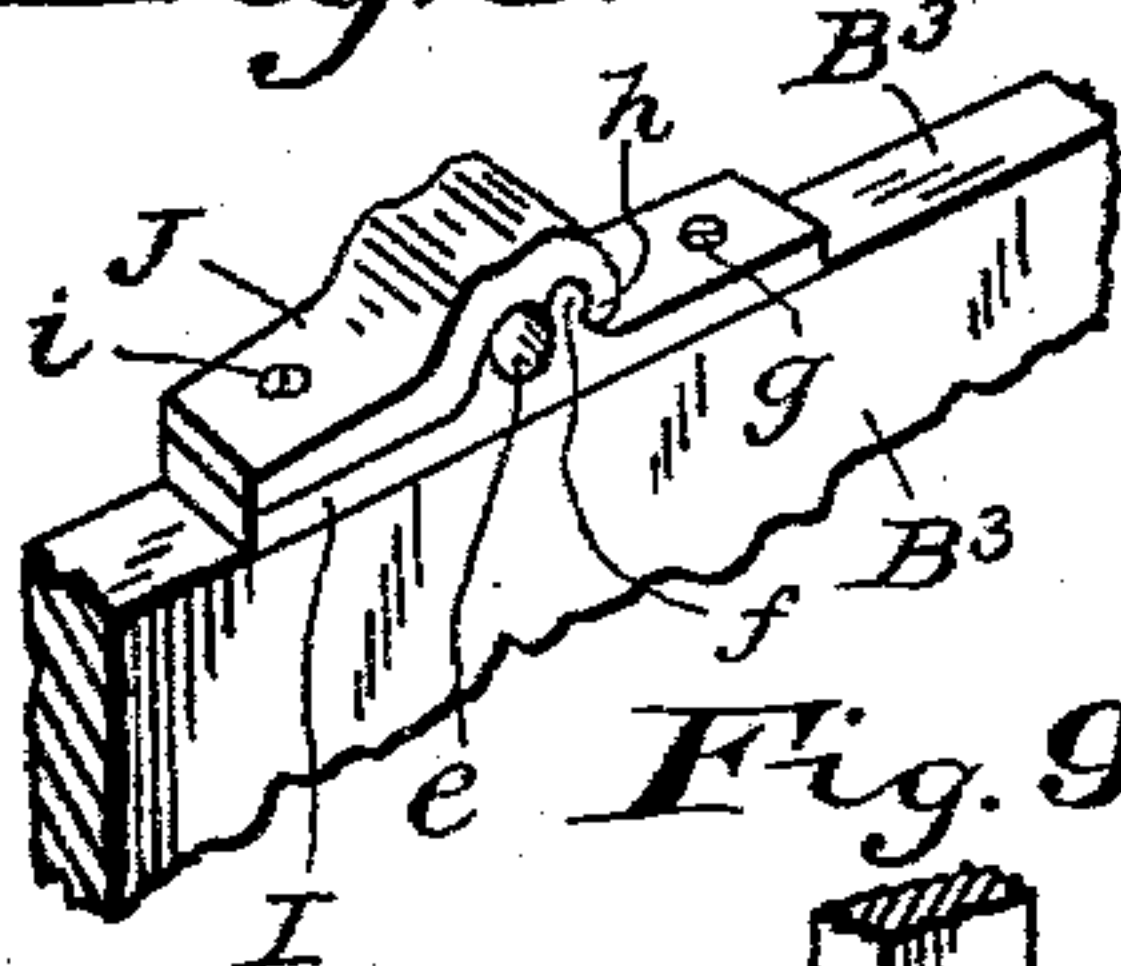


Fig. 6.

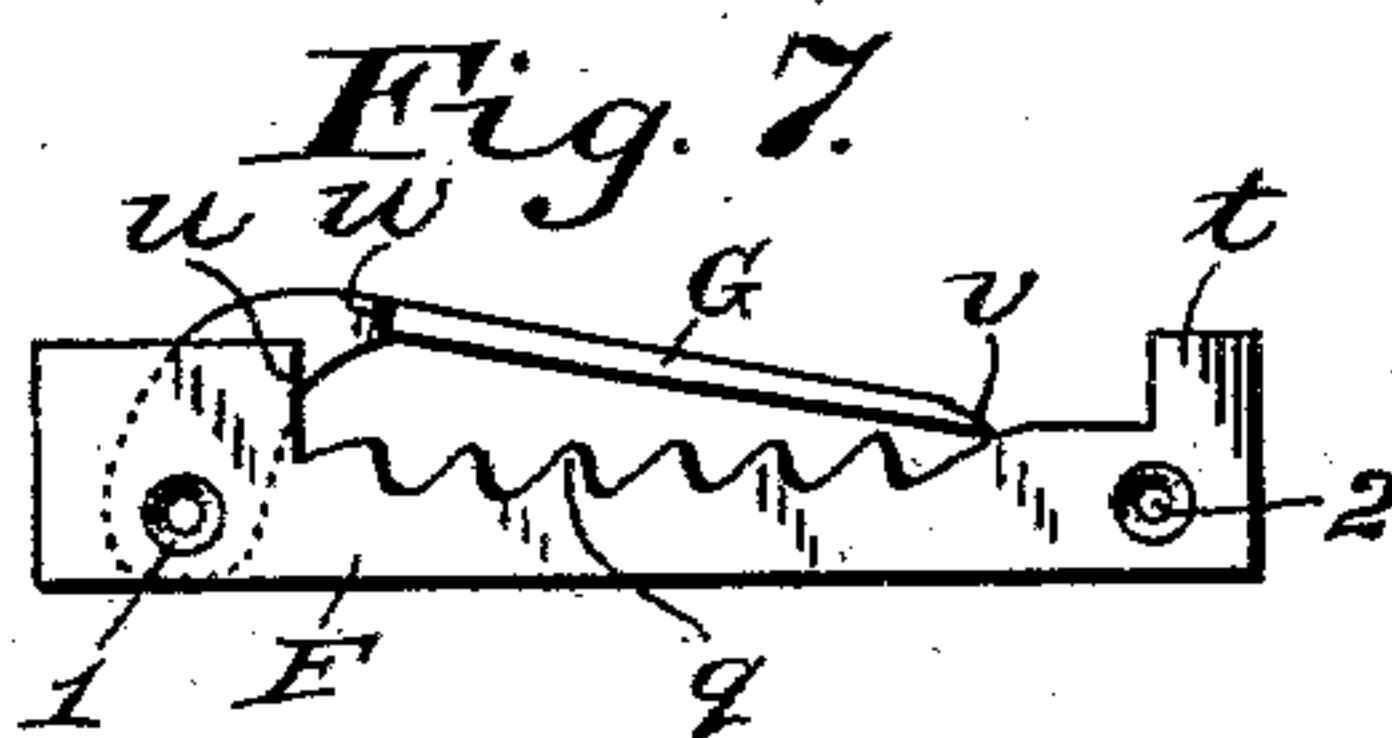
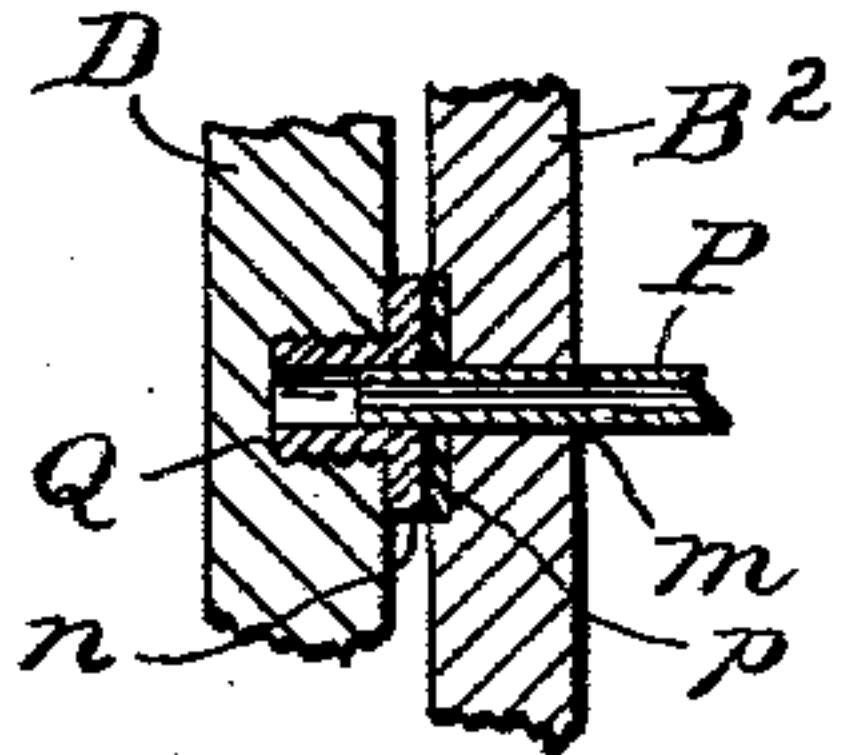


Fig. 8.

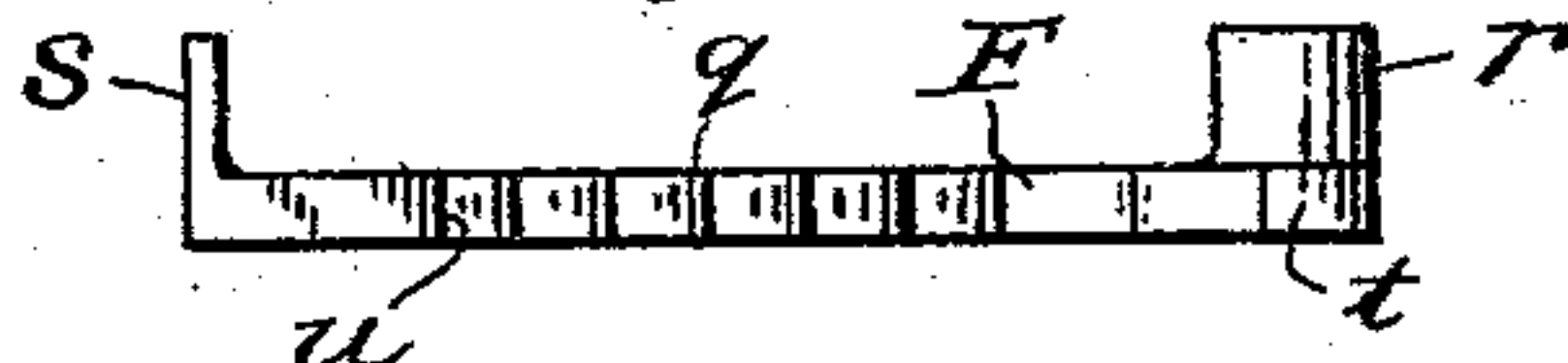


Fig. 9.

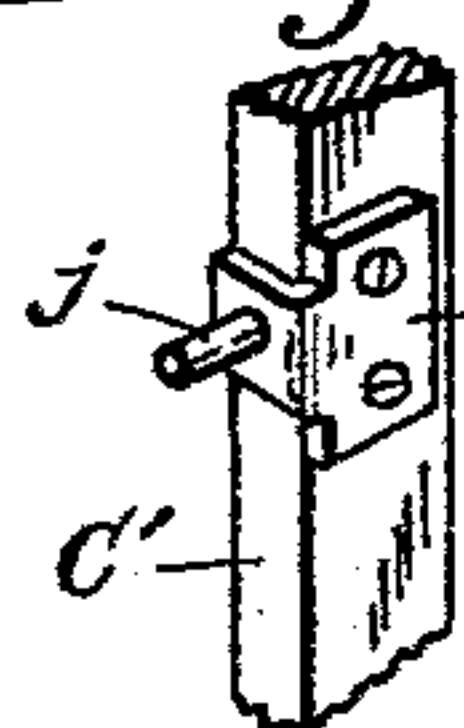


Fig. 10.

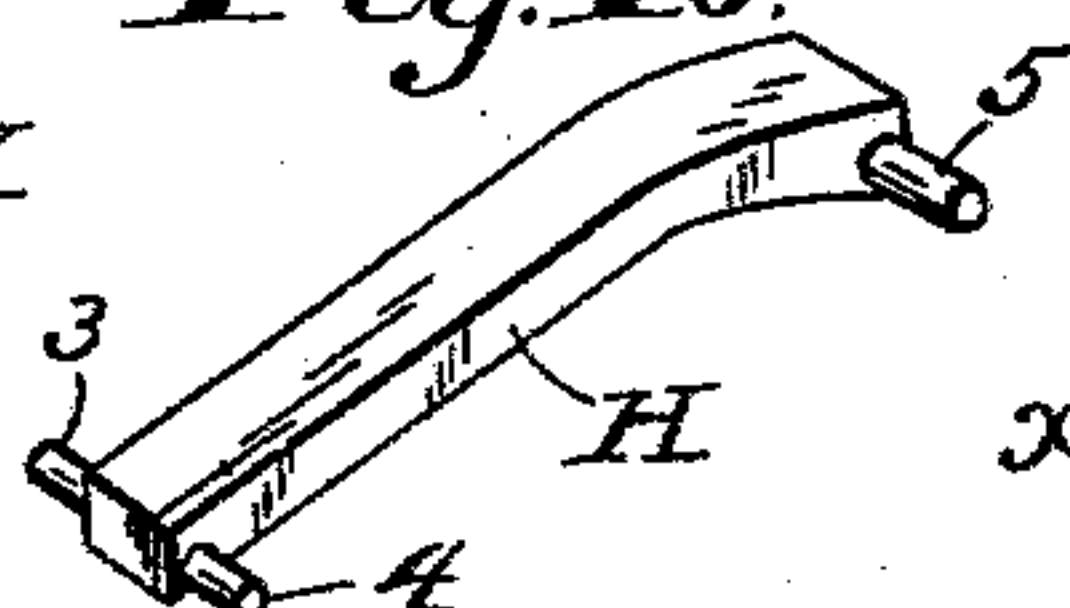
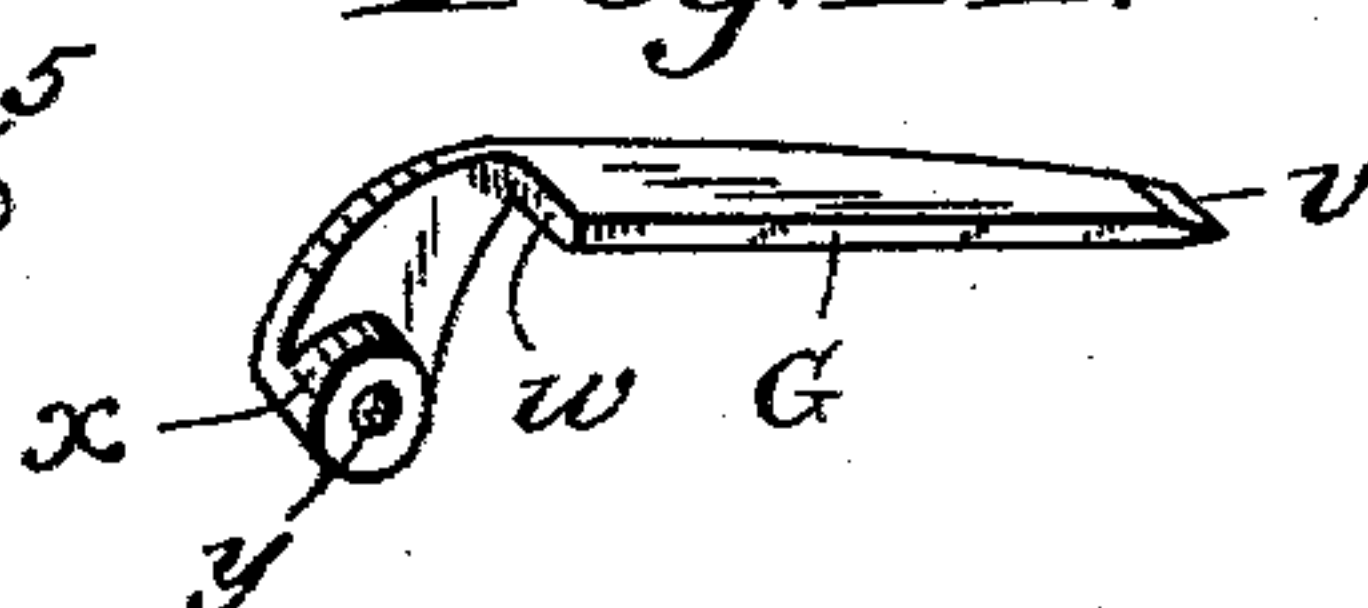


Fig. 11.



WITNESSES:

Or W. Vorhies.
Stella Snider.

INVENTOR:

Wm A. Wylie.

BY

E. J. Silvers.

ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM A. WYLIE, OF INDIANAPOLIS, INDIANA.

RECLINING-CHAIR.

SPECIFICATION forming part of Letters Patent No. 740,968, dated October 6, 1903.

Application filed December 1, 1902. Serial No. 133,350. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. WYLIE, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented new and useful Improvements in Reclining-Chairs; and I do declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to adjustable reclining-chairs that are designed to be adjusted by the occupants of the chairs while either sitting or reclining therein, and the invention has reference particularly to the means whereby the back may be adjusted, to the latching devices for the back, and also to minor details embodied in the construction of the chair.

The object of the invention is to provide a chair that may be cheaply produced and be durable and economical in use, that may be quickly and easily adjusted to different positions, and that may be automatically latched in its various positions.

My invention consists in a chair having rocking arm-rest supports and movable arm-rests connected operatively with the chair-back; and it consists also in the novel parts and in the novel combination and arrangement of parts as hereinafter particularly described, and pointed out in the claims appended hereto.

Referring to the drawings, Figure 1 represents a fragmentary side elevation of a chair constructed substantially in accordance with my invention, showing the parts essential to an understanding of the invention, the back being in an upright position; Fig. 2, a longitudinal vertical sectional view showing the back in an inclined position and the latch and arm-rests in corresponding positions; Fig. 3, a horizontal sectional view taken in a plane above the main frame and showing a top plan of the main frame and also of the latching devices; Fig. 4, a longitudinal sectional view showing the back and the latching devices in positions they would assume when moving the back from a full reclining position to an upright position or while be-

ing reversed; Fig. 5, a fragmentary perspective view of a side rail and journal-box for supporting the chair-back; Fig. 6, a fragmentary vertical transverse sectional view showing the devices for mounting the arm-rest supports; Fig. 7, a side elevation of a complete latch-rack; Fig. 8, a top plan view of a rack-bar part of the latch-rack; Fig. 9, a fragmentary perspective view of a side bar of the back-frame and the pivot thereof; Fig. 10, a perspective view of a latch-bar and back-brace combined, and Fig. 11 a perspective view of the cut-out bar of the latch-rack.

Similar reference characters in the several figures of the drawings indicate corresponding parts.

In construction the chair comprises suitable legs $A A' A^2 A^3$, to which is rigidly secured a suitable main frame, comprising rails $B B' B^2 B^3$. The rear legs $A^2 A^3$ may have upright posts α attached thereto extending upwardly beyond the main frame. A back-frame, comprising side bars $C C'$ and a cross-bar b and such other members as may be desired, is pivoted substantially to the main frame or to connecting portions thereof. Rocking arm-rest supports $D D'$ are mounted at the forward side portions of the main frame, and the back-frame side bars are also employed as rocking arm-rest supports, arm-rests $E E'$ being pivotally connected to the rocking arm-rest supports. Within the main frame are one or more latch-racks supported by suitable means, as the side rails $B^2 B^3$ of the frame, each latch-rack comprising a rack-bar F or F' , preferably made right and left hand in pairs and secured to the side rails, and a cut-out bar G or G' for each rack-bar is pivoted thereto, or substantially so, and coöperating therewith. Combined latch-bars and back-braces H , one for each latch-rack, are pivoted to the lower portion of the back-frame and operate in connection with the latch-racks. The cut-out bars and also the latch-bars are made right and left hand when more than one is employed.

Specifically, as a preferable manner of constructing and connecting the several elements the inner sides of the frame side rails B^2 and B^3 are provided with ledges $d d'$ for supporting the seat-frames or seat-cushion slats. Upon the tops of said side rails, near

the rear ends thereof, are mounted journal-boxes I, having each a bearing *e* and a lug *f* forward of the bearing. The forward end of the box is secured by a screw *g* to the rail.

5 A cap-plate J for the bearing has a lug *h* engaging the lug *f*, and the rear end of the plate, together with the rear end of the box, is secured by a screw *i* to the rail. Pivot-plates K are secured to the side bars of the back-
10 frame, each plate having a pivot-pin *j* extending from the side bar into a bearing-box. The caps J are lugged to the box I, so as to be easily connected in assembling the parts.

The pivoting devices for connecting the
15 arm-rests E E' to the back-frame may be such as are commonly employed for hanging mirrors in their frames, each comprising a plate L, secured to the under side of an arm-rest, and a plate M, secured to the rear side of a
20 side bar C or C' of the back-frame, the two plates being connected together by a pivot-pin *k* in such manner that there may be frictional resistance to the pivotal movements as between the plates.

25 The forward portions of the arm-rests E E' are connected to the rocking supports D D' by means of well-known T-hinges, the short broad leaves N of which are attached to the under sides of the arm-rests, and the long
30 narrow leaves O of which are attached to the tops of the supports, the hinge-pins *l* being between the rest and the supports. The arm-rest supports may be shaped and ornamented in various designs, according to the quality of
35 the chair, to correspond with the general design thereof.

In order to mount the arm-rest supports D D' in a substantial manner, the pivots thereof are composed of a single rotative shaft
40 P, extending from side to side of the main frame and mounted in bearings *m* therein, the bearings comprising holes bored in the side rails B² B³, (and the holes may also extend through the legs A A', if desired.) The lower
45 end portions of the supports D and D' are attached securely to the opposite ends of the shaft at the outer sides of the side rails, preferably by means of thimbles Q, which in the present case consist of pipe-fitting bushes
50 having flanges *n* and screwed into the wooden members D and D', the ends of the shaft being screwed into the bushes. The shaft may be composed of tubing. Usually a washer *p* is let into the side rail to receive the wear of
55 the bush-flange *n*.

The rack-bars F and F' have ratchet-teeth *q* at their tops, and at their inner sides are projecting posts *r* and *s*. Screw-holes 1 and 2 are provided whereby to secure the bars to
60 their supports. Each bar also has stops *t* and *u*, at or near opposite ends thereof, extending upwardly from the bar-top. The cut-out bars G and G' are designed to suit the bars F and F', and each one has a thin end *v* and a base
65 end *x*, having a pivot-hole *y*. The body portion of the bar projects from one side of the

plane of the base portion, so that the end *w* of the operative body portion is somewhat removed from the pivot of the bar. The cut-out bars are pivoted on the screws 7, that extend through the holes 1 at the rear ends of the rack-bars, and normally the ends *v* rest upon the tops of the rack-bars beyond the ratchet-teeth near the stops *t*. 70

The combined latch-bars and back-braces 75 H and H' act as pawls in connection with the rack-bars, and each one is provided at one end thereof with pivot-pins 3 and 4, which are engaged by holders 6, secured to the side bars C C' of the back-frame. At the opposite ends of the latch-bars are projecting pins 5, which are attached thereto at the sides nearest to the members that support the rack-bars, as the rails B² B³. The pins may ride upon the cut-out bar or engage the ratchet-teeth of the rack-bar as well as the end stops of the rack-bar. 80 85

In practical use if the chair-back be elevated to an upright position the tendency to fall back too rapidly will be resisted by the friction-pivots connecting the back and the arm-rests. The pins will rest upon the rack-bars at the fronts of the stops *t*. If the top of the back be pushed rearwardly, the latch-bars will be carried forwardly, the pins riding upon the bars G G' to the ends *w*, from which they will drop against the stops *u* to the rack-bar, when the back will be in full reclining position. If now the back be slightly elevated, the latch-bars will be drawn rearwardly, and as the pins 5 engage the teeth *q* the back will be prevented from descending, while it may be further elevated as may be desired. The occupant of the chair may perform the operations by pushing the arm-rests forward or backward and also assist by leaning against the back of the chair. When the back may have been completely elevated, the pins 5 will again engage the stops *t*, pushing up the ends *v* of the cut-out bars in passing thereunder. 90 95 100 105 110

Having thus described my invention, what I claim is—

1. In a reclining-chair, the combination of a main frame, forward arm-rest supports pivoted to the outer sides of the main frame, rearward arm-rest supports pivoted upon the top of the main frame and extending downwardly within the frame, rack-bars secured to the inner sides of the main frame, latch-bars connected to the lower extremities of the rearward arm-rest supports and coöperating with the rack-bars, lower hinge-leaves secured to the tops of the forward arm-rest supports and curved downwardly on the rear portions thereof, arm-rests pivoted to the rearward arm-rest supports and extending over and also laterally beyond the sides of the forward arm-rest supports, and upper hinge-leaves pivoted to the lower hinge-leaves and extending laterally beyond the sides of the forward arm-rest supports and secured at 115 120 125 130

their extremities to the portions of the arm-rests that extend laterally beyond the said forward supports, substantially as set forth.

2. In a reclining-chair, the combination of a
5 main frame, forward arm-rest supports pivoted to the outer sides of the main frame, journal-boxes mounted upon the sides of the main frame, two rearward arm-rest supports connected together and also comprising a
10 back-frame, pivoting-plates secured to the rear faces of said rearward supports and extending to the outer side faces thereof provided with pivoting-pins extending into said journal-boxes in a plane immediately above
15 said main frame, rack-bars secured to the inner sides of the main frame, latch-bars connected to the lower extremities of said rearward supports and coöperating with the rack-bars, and arm-rests pivoted upon the tops of
20 said forward supports and also pivoted to said rearward supports, substantially as set forth.

3. In a reclining-chair, the combination with the main frame having the bearings in
25 the forward portions thereof and with the forward arm-rest supports, of the improved

pivoting devices for said supports consisting of the hollow shaft mounted rotatively in said bearings, the thimbles adjustably secured to opposite ends of said shaft and also to said
30 arm-rest supports, the washers secured to the outer sides of said frame at said bearings, and the flanges secured to said thimbles adjacent to said washers and said supports, substantially as set forth.

4. In a reclining-chair, the combination with the main frame and with the arm-rests, of the arm-rest supports connected to the arm-rests and having each the circular recess
35 in the inner side thereof, the thimble secured 40 in said recess and having the flange engaging the said support, and the shaft extending into said thimble and secured thereto and mounted rotatively in the main frame, substantially
45 as set forth.

In testimony whereof I affix my signature
in presence of two witnesses.

WILLIAM A. WYLIE.

Witnesses:

WM. H. PAYNE,
E. T. SILVIUS.